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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/811,011

03/26/2004

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025213-9139-00

8994

23409 7590 12/11/2009
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EXAMINER

MAGUIRE, LINDSAY M

ART UNIT

PAPER NUMBER

3693

MAIL DATE

DELIVERY MODE

12/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/811,011	Applicant(s) MICCI-BARRECA, DANIELE	
	Examiner LINDSAY M. MAGUIRE	Art Unit 3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28,33-60 and 97-116 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28,33-60 and 97-116 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Final Office Action is in response to the application filed on March 26, 2004, the response to the Election/Restriction requirement filed on February 26, 2008, the Request for Continued Examination filed on December 8, 2008, the amendments filed on April 29, 2009, and the Request for Continued Examination filed on October 20, 2009.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 20, 2009 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-28, 33-60, and 97-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub. No. 2002/0099649 (Lee et al. '649) in view of U.S. PGPub. No. 2002/0161711 (Sartor et al. '711), and in further view of U.S. Pat. No. 6,714,918 (Hillmer et al. '918).

With respect to claims 1-8 and 33-40, Lee et al. '649 disclose a method/system performed by an information handling system ("IHS"), the IHS including a computer having an input device, a display device, a processor, a computer-readable medium, and a network interface, at least the processor and the network interface comprising electronic circuitry components, for determining whether a financial transaction request is likely to be fraudulent, the method comprising: the IHS receiving a first financial transaction request from a provider via a network interface (abstract); using the processor applying a plurality of rules to the first financial transaction request to determine a first score, each (Figure 1); using a processor determining a first indication of whether the first financial transaction request is likely fraudulent based on the first score (paragraphs [0043, 0045, 0066, 0115]). Additionally Lee et al. '649 disclose using the processor adjusting the weight of at least one of the plurality of rules in response to a command from a user (paragraphs [0075, 0210 - 0214]); receiving a second financial transaction request via the network interface (104, 110; Figures 1 & 2), and applying the plurality of rules to the second financial transaction request to determine a second score (paragraphs [0045, 0066, 0115], i.e. in order to learn the pattern of transactions, first transactions must be made to have something to compare the second transactions to);

wherein the IHS is a first IHS, and comprising: receiving the first financial transaction request from a second HIS, the second IHS including a computer having an input device, a display device, a processor, a computer-readable medium, and a network interface, at least the processor and the network interface comprising electronic circuitry components (104, 110, 116; see Figures 1 & 2); wherein receiving the first financial transaction request comprises: receiving the first financial transaction request from the second IHS through a global computer network (paragraph [0139]); and to the second IHS through the global computer network, outputting an indication of whether the first financial transaction request is likely fraudulent (paragraphs [0342 – 0348]). Lee et al. '649 further disclose that the financial transaction request includes determining the first indication includes comparing the first score to a threshold using the processor (paragraph [0043, 0045, Figures 1 and 2]).

Lee et al. '649 disclose the method substantially as claimed, as advanced above with the exception of explicitly requiring the IHS accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual income and automatically modifying the weight of at least one of the plurality of rules based on the result. However, Lee et al. '649 does disclose a transaction detection rate that represents the number of correctly identified fraudulent orders and a transaction false-positive rate that represents the number of orders incorrectly identified as fraudulent orders. Lee et al. '649 further disclose using these rates to determine the score thresholds (paragraphs [0364-0370]). Sartor et al.

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'711 disclose that the values of the variables can be set according to the actual history of fraud (paragraph [0003]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee et al. '649, in view of the teachings of Sartor et al. '711, to access an actual outcome of the first financial transaction after determining a result indication whether the first indication was correct for the basic reason of reducing the false-positive rate.

Regarding claims 13-23, 25, 27, 28, 45-55, 57, 59, and 60, Lee et al. '649 disclose a method/system performed by an information handling system ("IHS"), the IHS including a computer having an input device, a display device, a processor, a computer-readable medium, and a network interface, at least the processor and the network interface comprising electronic circuitry components, comprising: using the processor, determining whether a first financial transaction request is actually fraudulent; and in response to determining whether the first financial transaction request is actually fraudulent, using the processor to automatically adjust respective weights of a plurality of rules for determining whether a second financial transaction request is likely fraudulent (abstract; paragraphs [0045, 0066, 0075, 0115, 0210-0214]).

Additionally, Lee et al. '649 disclose outputting a first indication of whether the first financial transaction request is likely fraudulent based on the first score (paragraphs [0364-0371]); determining a second score for the second financial transaction request by applying the plurality of rules to the second financial transaction (paragraphs [0043, 0045, 0066, 0115]), determining whether the second financial transaction request is

actually fraudulent; and in response to determining whether the second financial transaction request is actually fraudulent, adjusting the weight of at least one of the plurality of rules for determining whether a third financial transaction request is likely fraudulent (paragraphs [0045, 0066, 0075, 0115]); wherein the IHS is a first IHS, and comprising: receiving the second financial transaction request from a second HIS, the second IHS including a computer having an input device, a display device, a processor, a computer-readable medium, and a network interface, at least the processor and the network interface comprising electronic circuitry components (104, 110, 116, Figures 1 and 2); wherein receiving the second financial transaction request comprises: receiving the second financial transaction request from the second IHS through a global computer network (paragraph [0139]); and to the second IHS through the global computer network, outputting an indication of whether the second financial transaction request is likely fraudulent (paragraphs [0342-0348]). Lee et al. '649 further disclose that the first financial transaction request is actually non-fraudulent (paragraphs [0036, 0037, 0043]; i.e. the transactions that are used to develop the history of purchases); wherein the first financial transaction request is actually fraudulent (paragraphs [0036, 0037, 0043]; i.e. the first transaction made to a particular merchant that doesn't fit the users profile); wherein the first financial transaction request includes information about a financial account that is associated with the first financial transaction request (paragraph [0043]); adjusting the weight of at least one of the plurality of rules in response to a command from a user (paragraphs [0075, 0210-0214]); wherein adjusting the weights comprises: adjusting the weight of at least one of the plurality of rules to improve a predictive

accuracy of the weights (paragraphs [0075, 0210-0214]); and in response to determining whether the first financial transaction request is actually fraudulent, adjusting a threshold and applying the threshold to the second score for determining whether the second financial transaction request is likely fraudulent (paragraphs [0064-0067]).

Additionally, Lee et al. '649 disclose that in response to determining whether the first financial transaction request is actually fraudulent, storing an actual result for the first financial transaction request and the first financial request to a valid/invalid transaction database (314).

Lee et al. '649 disclose the method substantially as claimed, as advanced above with the exception of explicitly requiring automatically modifying the weight of at least one of the plurality of rules based on the result. However, Lee et al. '649 does disclose a transaction detection rate that represents the number of correctly identified fraudulent orders and a transaction false-positive rate that represents the number of orders incorrectly identified as fraudulent orders. Lee et al. '649 further disclose using these rates to determine the score thresholds (paragraphs [0364-0370]). Sartor et al. '711 disclose that the values of the variables can be set according to the actual history of fraud (paragraph [0003]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee et al. '649, in view of the teachings of Sartor et al. '711, for the basic reason of reducing the false-positive rate.

Lee et al. '649 discloses the method substantially as claimed, as advanced above, with the exception of requiring: (a) activate a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight and determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula using the sum (claim 1, lines 2-6; claim 13, lines 5-8; claim 33, lines 5-9; claim 45, 4-8; claim 97, lines 6-10); (b) transmitting the first indication to the provider to accept or deny the first financial transaction (claim 1, lines 10-11); (c) that the plurality of rules include at least one positive rule that, if satisfied, indicates that a financial transaction request has an increased likelihood of being non-fraudulent (claim 9, lines 1-3; claim 11, lines 2-3; claim 41, lines 1-3; claim 43, lines 2-3; claim 58, lines 1-3); (d) that the plurality of rules include at least one negative rule that, if satisfied, indicates that a financial transaction request has a reduced likelihood of being non-fraudulent (claim 10, lines 1-2; claim 11, lines 4-5; claim 42, lines 1-2; claim 43, lines 4-5; claim 58, lines 3-4); and (e) that a value of the at least one positive rule's weight is variable between zero and a number having a first +/- sign; and a value of the at least one negative rule's weight is variable between zero and a number having a second +/- sign opposite of the first +/- sign (claim 12, lines 1-5; claim 44, lines 1-5).

Regarding (a) and (b), Hillmer et al. '918 disclose activating a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight and determining a first score by calculating a sum

of the weights of the activated rules and applying a mathematical formula using the sum (abstract; column 2, lines 39-60; column 9, lines 22-55), and transmitting the first indication to the provider to accept or deny the first financial transaction (column 12, line 50 – column 13, line 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method/system of Lee et al. '649, in view of the teachings of Hillmer et al. '918, to include a first score by calculating a sum of the weights and applying a mathematical formula using the sum, and transmitting the indication to the provider for the basic reason of combining known elements to yield predictable results.

Regarding (c) - (e), Lee et al. '649 does disclose that there are a plurality of rules, and that the merchants can, "write policies formulated as computational rules that become active within the rules engine.....the merchants define, edit, delete any rule it desires...the rules enables the merchant's fraud-risk prediction system to automatically determine actions based on fraud scores..." (paragraph [0075]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the merchant could make a positive rule that indicates non-fraudulent activities and a negative rule that indicates fraudulent activities for the basic reason creating rules that work best for the user. Additionally, Lee et al. '649 disclose that the rules can be changed however the user sees fit, which would include editing the rule's weight value of both positive and negative rules to include sign changes for the obvious reason of allowing the user to customize the system to their use.

Regarding claims 97-104 and 111-116, these claims are substantially similar to claims 1-28 and 33-60, and are rejected using the same art and rationale, as advanced above.

With respect to claims 105-110: Lee et al. '649 discloses that financial account information includes at least one of account holder information, account number information, account expiration information, and account billing information (paragraph [0064]); that previous financial transaction request includes transaction information (paragraph [0065]); that the transaction includes at least one of shipping information and transaction type information (paragraph [0064]); that the transaction information includes IP address information and that the IP address information is associated with a customer (paragraph [0064]).

Response to Arguments

Applicant's arguments filed October 20, 2009 have been fully considered but they are not persuasive.

In response to applicant's argument that the Lee, Sartor, and Hillmer references cannot be combined because the scoring methodologies used in the three systems are dramatically different, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or

all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant's arguments that "the results of combining the Lee, Sartor, and Hillmer systems would not appear to be predictable to one of ordinary skill in the art" are acknowledged, however the examiner is of another opinion. Specifically, the elements of Lee, Sartor, and Hillmer are all well known elements in the art of fraud determination, and therefore would yield predictable results when combined since there would be no change in their respective functions. Additionally, one of ordinary skill in the art would have been fully capable of combining these known elements to yield these predictable results.

Applicant's arguments that the examiner only considered a combination of Lee and Sartor and then a combination of Lee and Hillmer without combining all three references together, are acknowledged, however the examiner is of another opinion. Specifically, from the 35 USC 103 heading, advanced above, it is shown that, " Claims 1-28, 33-60, and 97-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub. No. 2002/0099649 (Lee et al. '649) in view of U.S. PGPub. No. 2002/0161711 (Sartor et al. '711), and in further view of U.S. Pat. No. 6,714,918 (Hillmer et al. '918)[.]" which clearly states that the three references are being used to reject the claims together.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the known system of Lee is combined with the known ability to set variables according to an actual history of fraud of Sartor, and with the known mathematical formulas and rules of Hillmer to yield predictable results.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued

examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINDSAY M. MAGUIRE whose telephone number is (571)272-6039. The examiner can normally be reached on M-F: 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kramer James can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

Lindsay M. Maguire
12/7/09
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